L.J.G. Land Company
Mitigation Services, LLC

PROSPECTUS FOR THE PROPOSED
BIG DARBONNE BAYOU MITIGATION BANK

NOVEMBER 2012

Prepared By

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135 Regency Square
Lafayette, Louisiana 70508
337-237-2200

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1.0 INTRODUCTION

L.J.G. Land Company Mitigation Services, LLC, submits this Prospectus to the U.S. Army Corps of Engineers - New Orleans District (CEMVN) and Mitigation Bank Review Team (MBRT) to introduce the Big Darbonne Bayou Mitigation Bank (here after referred to as BDBMB) for establishment. The proposed BDBMB is 132.8 acres in size and its use is to provide compensatory mitigation to offset unavoidable impacts to "Waters of the United States" associated with Department of the Army, Section 404 permits.

1.1 Site Location

The proposed BDBMB is located approximately 9 miles northwest of the town of Krotz Springs and approximately 3,000 feet northeast of the intersection of LA Hwy. 71 and the West Atchafalaya Basin Protection Levee (Figure 1). Additionally, the BDBMB falls within Sections 9 and 16 of Township 5 South, Range 6 East of St. Landry Parish, Louisiana (Figure 2). The geographical coordinates for the BDBMB are Latitude 30° 37' 43.29" and Longitude 91° 52' 5.06".

2.0 BANK GOALS AND OBJECTIVES

The goal of the BDBMB is the re-establishment of bottomland hardwood forested wetlands within the West Atchafalaya Basin Floodway. The re-establishment of the 132.8 acre BDBMB Phase I will restore multiple wetland functions that existed prior to clearing for agricultural purposes.

2.1 Current Habitat Types

Habitat Type	***Acreage***
Prior-converted Wetland*	132.8
Wetland**	0
Other US Waters	N/A

*NRCS Prior-Converted Wetland Correspondence located in the Appendices

2.2 Mitigation Habitat Types

Habitat Type	***Elevation-NAVD 88***	***Acreage***	***Mitigation Type***
Bottomland Hardwood	18’ - 22’	132.8	Re-establishment

2.3 Aquatic Functions to be Restored

Cessation of commercial agriculture and its associated drainage management scheme to prevent water retention will be used to restore natural hydro-period and soil conditions. Additionally, plantings will be used to restore historic forested wetland habitat. Re-establishment of the bottomland hardwood wetlands will restore aquatic functions, such as increasing flood storage capacity, sediment trapping, nutrient retention and removal, and provide habitat for wildlife.

3.0 ECOLOGICAL SUITABILITY OF THE SITE

3.1 Historical Ecological Characteristics of the Site

Prior to the installation of the Atchafalaya Basin Floodway and the Atchafalaya River Guide Levees, tributaries meandered across the basin floodplain to their convergence with the Atchafalaya River. Historically, the BDBMB was part of a vast bottomland hardwood wetland ecosystem consisting of natural levees and broad flats to concave swales with slopes of less than 1 percent. Hydrology was influenced by the nearly level, poorly drained soils found on the lower portions of the natural levees within the floodplain.

Since the installation of the levees, the Atchafalaya River no longer drains the northern portion of the basin, instead streams such as Big Darbonne Bayou meander southerly within a complex drainage network before eventually draining into lakes located in the southern portion of the basin (Louisiana Department of Environmental Quality, 2008). The BDBMB is located at the head waters of Big Darbonne Bayou.

Deforestation on the BDBMB and adjacent areas took place between 1978 and 1985 (Figures 3A-3C). Hydrology indicators on the infrared photography reveal that the landscape topography basically has been preserved, with the exception of the addition of agricultural ditches. Although common, the installation of the drainage features has altered the hydrology, providing more suitable conditions for the cultivation of agricultural crops.

3.2 Current Ecological Characteristics of the Site

Soils

According to the National Resource Conservation Service (NCRS) Web Soil Survey (2012), the Sh – Sharkey clay and Bd – Baldwin silty clay loam encompasses the entire area of the BDBMD (Figure 4). The Sharkey clay and Baldwin silty clay loam soils are rated as hydric and appear on the National Hydric Soils List (Natural Resources Conservation Service, 2012). The referenced soil survey describes the Sh soil as being “level and poorly drained and found on the lower parts of the natural levees of distributary channels of the Mississippi River” (U.S. Department of Agriculture [USDA], 1986). The Bd soil type is described as being level, poorly drained and is found in the intermediate and low positions on natural levees of old distributary channels of the Mississippi River (USDA, 1996). Water and air move slowly through these soils while the seasonal high water table fluctuates between depths of 2 feet to the surface between the months of December and April. Both of these very fertile soils are considered well suited for woodlands (USDA, 1986).

Vegetation

Currently, the land is being utilized for the cultivation of crops, specifically soybeans and grain sorghum. Modern agriculture practices, such as herbicide applications and vegetative maintenance, have significantly influenced natural vegetation associated with non-cultivated agricultural areas such as headlands and turn rows. Vegetation associated with these areas includes mixtures of facultative to facultative wetland species of grasses and forbs. Re-establishment of the bottomland forested species within the BDBMB will increase nutrient retention in the area and reduce sedimentation in the Big Darbonne Bayou drainage basin.

Hydrology

Currently, the BDBMB exists in agricultural areas where the topography has not been significantly altered. Following conversions from forested wetlands to lands suitable for agricultural purposes, hydrologic modifications such as ditching were implemented for the purpose of increased drainage through the broad flats and concave swales throughout the landscape. Because the natural topography of the area has been preserved, removal or degradation of the drainage modifications would restore most of the functions of the natural hydrologic regime. Increased flood storage capacity within the BDBMB will be accomplished by removal of the interior field drainage ditches.

Big Darbonne Bayou and a tributary to Big Darbonne Bayou border the BDBMB to the south and east, respectively. Located east and south of the proposed BDBMB is approximately 420 acres of established bottomland hardwood wetlands currently enrolled in the NRCS Wetland Reserve Program (WRP).

Infrared imagery illustrates that lower areas of the BDBMB experience periods of surface saturation and inundation (Figure 3D). Similar surface hydrologic conditions were observed in numerous years of infrared aerial photography as well as in historical images prior to land clearing. The current local hydrologic conditions remain a dominant influence to the head waters of the Big Darbonne Bayou drainage basin. Water sources are primarily that of surface water runoff from rainfall events. The contributing drainage area for the BDBMB is approximately 784 acres in size (Figure 5) and is comprised of primarily agriculture fields. Average annual precipitation is 53.56 inches with December having the highest average of 6.16 inches. Light Detection and Ranging Imagery (LIDAR) slope in the BDBMB is nearly level ranging from 18’-22’ NAVD 88, providing for very slow runoff and natural drainage is very poor without the aid of drainage modifications (Figure 6) (Federal Emergency Management Agency, 2005).

A Preliminary Jurisdictional Determination (MVN-2010-02819-SC) dated January 21, 2011 was obtained from the CEMVN. The determination was for an area approximately 942 acres in size which contained the entire 132.8 acres of the proposed BDBMB. It was determined that the proposed BDBMB acreage was classified as non-wetland.

3.3 General Needs

The BDBMB is proposed to furnish re-established bottomland hardwood forested wetland mitigation to CEMVN approved projects in hydrologic cataloging unit 08080101 (primary) and hydrologic accounting unit 080801. Currently, there are no existing mitigation banks in hydrologic cataloging unit 08080101 that provide forested wetland mitigation.

The area is currently and has been historically active in oil and gas development and transportation. "In 1995, the United States Geological Survey (USGS) determined that the Austin Chalk is our Nation's largest, onshore domestic unconventional, continuous–type oil resource." (U.S. Geological Survey, 1999). Recent technological advances utilized in horizontal directional drilling activities in the Haynesville Shale located in northwest Louisiana and the Eagle Ford Shale in south Texas have increased the potential for further development associated with the deeper Tuscaloosa Marine Shale formation. Ongoing energy demands, along with emergence of the Tuscaloosa Marine Shale Play, have accelerated the need for forested wetland mitigation to offset the wetland impacts associated with the oil and gas exploration and transportation projects within the hydrologic unit.

The goals and objectives of the BDBMB as they relate to wetland functions and in particular the role those functions play in improving water quality are consistent with the Louisiana Department of Environmental Quality (LDEQ) Non-Point Source Management Plan for the Atchafalaya River Basin, LDEQ Water Quality Management Plan: Volume 4 and the Atchafalaya Basinkeeper Master Plan for Water Quality.

3.4 Technical Feasibility

As mentioned in Section 3.0, prior to land clearing for agricultural purposes, the acreage encompassing the BDBMB was part of a vast bottomland hardwood ecosystem. Currently the adjacent area is still comprised of thousands of acres of bottomland hardwood wetlands and WRP acreage. The soil type and elevation contour characteristics present on the proposed BDBMB can be identified throughout the surrounding area. More importantly, these characteristics exist within the fully functioning forested wetland habitats and the recently converted WRP acreage. These characteristics favor great potential for successful re-establishment of forested wetlands on the proposed BDBMB. Finally, the construction activities required to complete the site restoration are routine, feasible, and will be accomplished using traditional farming equipment.

4.0 ESTABLISHMENT OF THE MITIGATION BANK

4.1 Site Restoration Plan

The proposed BDBMB involves the cessation of agricultural activities, restoration of surface hydrology, and reforestation. The implementation of the BDBMB will provide restoration of 132.8 acres of bottomland hardwood wetlands adjacent to Big Darbonne Bayou, its tributaries, and existing bottomland hardwood wetlands.

All agricultural ditches within the boundary of the BDBMB will be degraded. The degradation of drainage modifications will provide restoration of surface hydrology to the natural broad, flat, concave swale, landscape of the area. The plan to restore hydrology on the BDBMB will not involve activities requiring a Department of the Army (DA) 404 permit. In order to provide a hydrologic connectivity north and south of the existing road, a 24" x 34' culvert will be installed. See the Hydrologic Improvement Map (Figure 7) for details. There will be no temporary or permanent management requirements to ensure hydrologic or vegetative restoration. A 20' buffer around the southern and eastern perimeter of the BDBMB will be maintained for ingress and egress to the property for potential uses such as recreation, mitigation bank management operations, and management activities and access adjacent to the BDBMB. The BDBMB acreage does not include the buffer acreage. For more details as to the location of the buffer in relation to the bank, please refer to Perimeter Buffer Map (Figure 8).

The entire 132.8 acre BDBMB will be reforested by planting a mixture of species indigenous and native to local bottomland hardwood ecotypes. Species selection and position will be determined by edaphic conditions of the site. A mixture of five to ten species of hard-mast and soft-mast producing species will planted on an approximate 9' x 9' spacing, or a density of 538 trees per acre. Site preparation will include a combination of plowing, ripping, and pre-emergent herbicide applications. The vegetative plantings will be comprised of 70% hard-mast and 30% soft-mast producing species of vegetation. The exact species and quantities will be determined and dependent on availability from commercial nurseries with localized ecotype seedlings. Planting will occur during the non-growing season, or "planting" season, typically December 15th to March 15th. Exotic and invasive species control will be implemented by means of chemical and mechanical control or a combination of both measures.

4.2 Current Site Risks

The sponsor does not anticipate any adverse impacts to the BDBMB resulting from neighboring land uses. Currently the adjacent areas remain in agriculture, WRP, and jurisdictional waters. The surrounding landholdings are currently owned and managed by the sponsor. There are no existing hydrological disturbances on or adjacent to the BDBMB over which the owner or sponsor does not control. Adjacent vegetative communities do not appear to be viable seed sources for exotic and invasive species; however, control measures will be implemented to eliminate the existence of undesirable species by all means practical. The acreage for the BDBMB is currently under mortgage and the mortgage is held by the Louisiana Land Bank. Additionally, there are no liens and or

ordinances affecting the proposed mitigation bank.

4.3 Long-Term Sustainability of the Site

The primary objective of the BDBMB is to re-establish a viable bottomland hardwood wetland ecosystem and its historical functions within the West Atchafalaya Floodway and Big Darbonne Bayou drainage basin. The sponsor anticipates that once implementation of hydrology restoration and reforestation has been completed, as set forth in the restoration plan, the aquatic resource will be virtually self-sustaining. The natural hydrology and landscape position will support long-term sustainability accompanied by adaptive management for the purpose of controlling exotic and invasive species of vegetation, and appropriate monitoring of vegetation through early succession for adequate survival and diversity.

Article 490 of the Louisiana Civil Code treats water resources under the theory of absolute ownership and rule of capture provided that such capture does not result in harm to neighboring properties. The proposed BDBMB will depend primarily on precipitation and supplemented by seasonal high water tables. The long-term hydrology maintenance will not be dependent upon surface water that is captured or stored; therefore, sufficient water rights are ensured for such purposes. The contributing drainage basin is located solely on the sponsor/landowner's property; therefore the sponsor does not foresee any adverse impacts to neighboring lands as a result of establishing the BDBMB.

5.0 PROPOSED SERVICE AREA

The BDBMB shall provide compensation for project related impacts to forested wetlands in the Atchafalaya Basin (Subsegment: West Atchafalaya Basin Floodway – Simmesport to Butte LaRose Bay and Henderson Lake, 010301), which is a subunit of the Lower Mississippi River - Louisiana Coastal Subregion. More specifically, the primary service area for the BDBMB is Cataloging Unit 08080101 as demarcated on the 1974 USGS Hydrologic Unit Map of Louisiana (Figure 9). The BDBMB may still be considered as compensation for impacts occurring outside the Cataloging Unit as determined by the CEMVN on a case-by-case basis.

6.0 OPERATION OF THE MITIGATION BANK

6.1 Project Representatives

Sponsor/Operations Manager

L.J.G. Land Company Mitigation Services, LLC
P.O. Box 692
New Roads, LA 70760
Phone (225) 638-9015
Fax (225) 638-9016
POC: L.J. Grezaffi
Email: ljglandcompany@bellsouth.net

Agents

C.H. Fenstermaker & Associates, Inc.
135 Regency Square
Lafayette, Louisiana 70508
(337) 237-2200
POC: Chris Guidry
Email: chrisg@fenstermaker.com

Bottomland Consulting, LLC
2194 South Fieldspan Road
Duson, Louisiana 70529
(337) 935-6447
POC: Brandon Melville
Email: bottomlandconsulting@gmail.com

Landowner

Seventy One Plantation, LLC
7865 False River Road
Oscar, LA 70762
Phone (225) 718-8446
POC: Luke Grezaffi
Email: lukegrezaffi@wildblue.net

6.2 Qualifications of the Sponsor

LJG Land Company Mitigation Services, LLC will be the entity responsible for bank management and office operations. LJG Land has over 55 years of combined personnel experience in land management in Louisiana, including over 45 years of experience in farming. LJG Land has also converted hundreds of acres of farmland into the Wetlands Reserve Program over the years.

6.3 Proposed Long-Term Ownership and Management Representatives

Long-Term Ownership

Seventy One Plantation, LLC
7865 False River Road
Oscar, LA 70762
Phone (225) 718-8446
POC: Luke Grezaffi
Email: lukegrezaffi@wildblue.net

6.4 Site Protection

BDBMB will be protected in perpetuity by conservation servitude pursuant to Louisiana Revised Statute 9:1271 et seq. The servitude will be held by a conservation-oriented 501(c)(3) organization which will be determined. The servitude will remain bound to the property title.

The servitude will prohibit activities, such as clear cutting, fill discharges, cattle grazing, or other commercial surface development that would diminish the quality or quantity of restored wetlands.

6.5 Long-Term Strategy

The long term strategy for the BDBMB is to successfully restore 132.8 acres of bottomland hardwood wetlands and its original functions through a combination of vegetative plantings, vegetative management, invasive species eradication and/or control, vegetative and hydrologic monitoring, and site protection. The BDBMB will not involve or require any long-term structural management requirements related to levees, weirs, culverts, etc., needed to assure vegetative and/or hydrologic restoration.

7.0 REFERENCES

Louisiana Department of Environmental Quality. (2008). *Water Quality Management Plan: Volume 4* (Basin and Subsegment Boundaries). Louisiana Department of Environmental Quality, Office of Environmental Assessment, Water Quality Assessment Division. Baton Rouge, Louisiana.

U.S. Department of Agriculture. (1986). *Soil Survey of St. Landry Parish, Louisiana.* U. S. Department of Agriculture, Soil Conservation Service. Baton Rouge, Louisiana.

Natural Resources Conservation Service. (2012) *National Hydric Soils List by State* [website]. U.S. Department of Agriculture, Natural Resources Conservation Service. Soil Survey Staff. Accessed May 8, 2012. Available URL: http://websoilsurvey.nrcs.usda.gov/app/

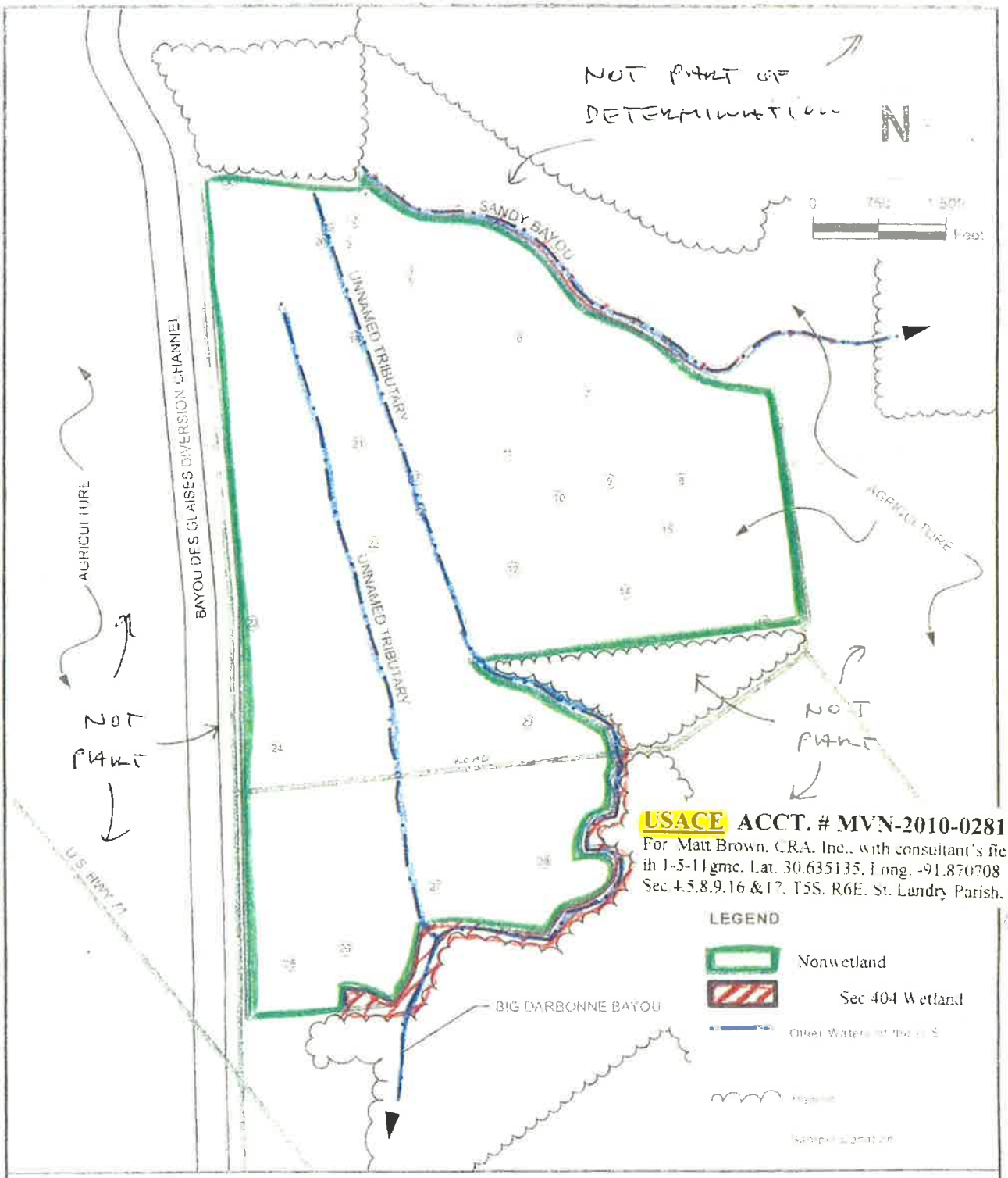
U. S. Department of the Interior. (1974). *Hydrologic Unit Map-1974, State of Louisiana*. [Map]. U.S. Geological Survey. Ruston, Virginia.

U.S. Geological Survey. (1999) *USGS Fact Sheet FS-019-99.* U.S. Department of the Interior, U.S. Geological Survey.

Federal Emergency Management Agency. (2005). *Federal Emergency Management Agency (FEMA) Project- Phase 3 of Louisiana LIDAR Data Development: St. Landry Parish, Louisiana* [Contour Shapefile]. Retrieved from http://atlas.lsu.edu/rasterdown.htm

8.0 APPENDICES

8.1 Jurisdictional Determination Maps



RE: NAIP 2007 Aerial photograph. CRA site visit on Oct. 13 2010.

PRELIMINARY
JURISDICTIONAL DETERMINATION

figure 2
SITE MAP
BIG DARBONNE BAYOU SITE
ST. LANDRY PARISH, LOUISIANA
Sycamore Sustainable Services, LLC

20597-00-000)PR-BR006 OCT 14*2010

8.2 NRCS Prior-Converted Wetlands Correspondence

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
5832 I-49 North Service Rd., STE 2
Opelousas, LA 70570
(337) 942-2530, Extension 3

February 4, 2011

Luke Grezaffi
7865 False River Rd.
Oscar, LA 70762

Attached are some NRCS maps showing your farm as PC/NW and a few Highly Erodible land and Wetland Conservation Determination (026's). This is the farm off of Hwy. 71. The 026's shows that the fields are considered prior converted wetlands. However, I was not able to find all of the 026's for the entire farm.

The soil types located on your farm are Gallien (Ga), Lebleau Clay (Lb), Sharkey (Sh, So) and Baldwin (Bd). The Lebleau Clay, Sharkey and Baldwin soils are considered hydric soils. If any part of the soils are located in a field, then the entire field is considered prior converted wetlands.

If you have any questions, please contact my office.

Sincerely,

Keith Latiolais mhh

Keith Latiolais
District Conservationist
USDA-NRCS
Opelousas Field Office

KL/mhh

Enclosures

8.3 Maps and Figures

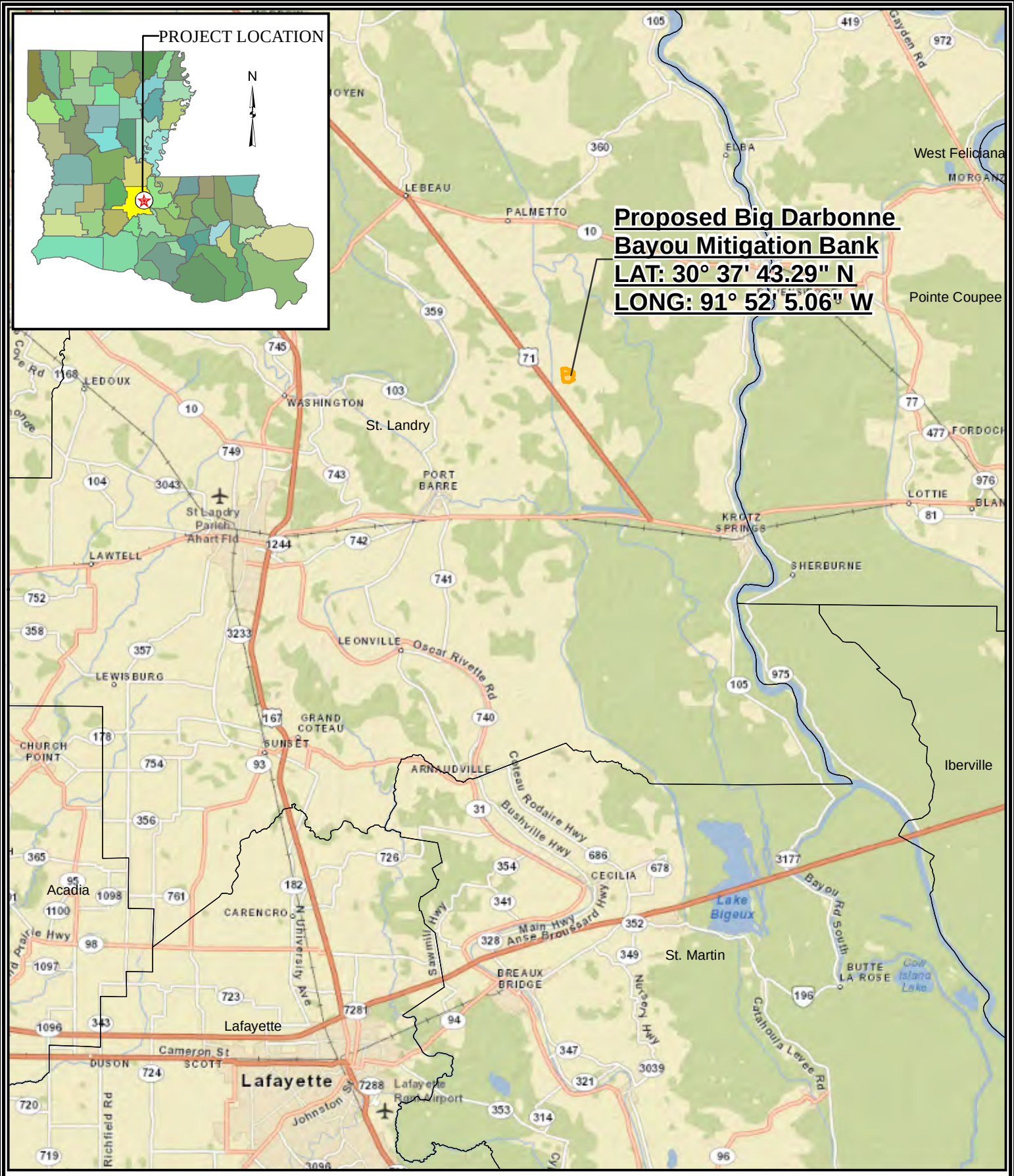


FIGURE 1 : VICINITY MAP

L.J.G. Land Company Mitigation Services, LLC
Big Darbonne Bayou Mitigation Bank
St Landry Parish Louisiana
SEC 8, 9, 16 & 17 : T05S - R06E
April 2012

C.H. FENSTERMAKER & ASSOCIATES, INC.
Engineers • Surveyors
Environmental Consultants

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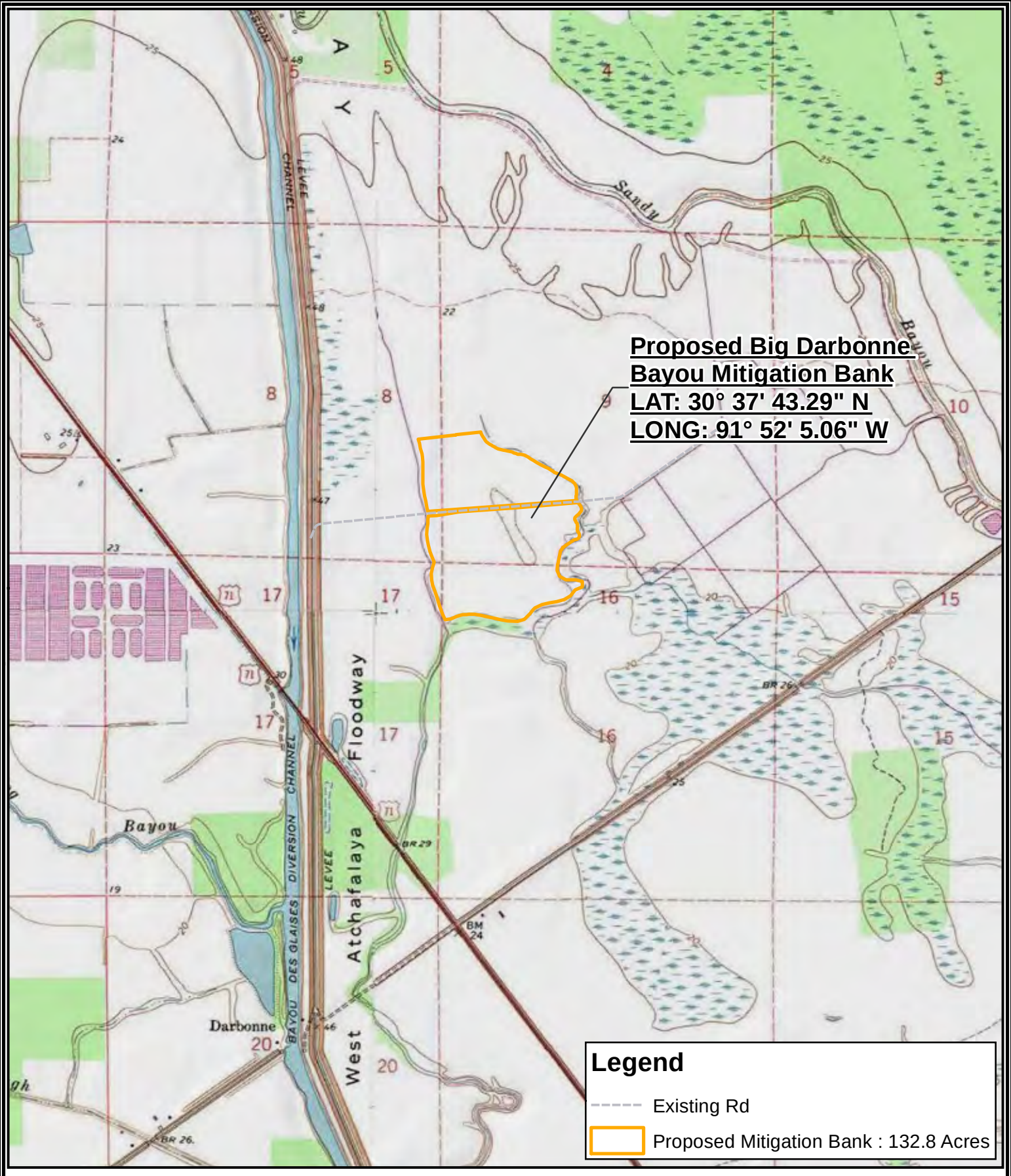

FIGURE 2 :U.S.G.S. 7.5 MINUTE QUADRANGLE

(Krotz Springs NW, Swayze Lake SW)

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L.J.G. Land Company Mitigation Services, LLC
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St. Landry Parish Louisiana
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FIGURE 3-A : 1966 HISTORICAL AERIAL

(Aerial Date : March 6, 1966)

L.J.G. Land Company Mitigation Services, LLC
Big Darbon
St. Landry Parish Louisiana
SEC 8, 9, 16 & 17 : T05S - R06E
April 2012

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FIGURE 3-B : 1978 HISTORICAL AERIAL

(Aerial Date : October 8, 1978)

L.J.G. Land Company Mitigation Services, LLC
Big Darbonne Bayou Mitigation Bank
St. Landry Parish Louisiana
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April 2012

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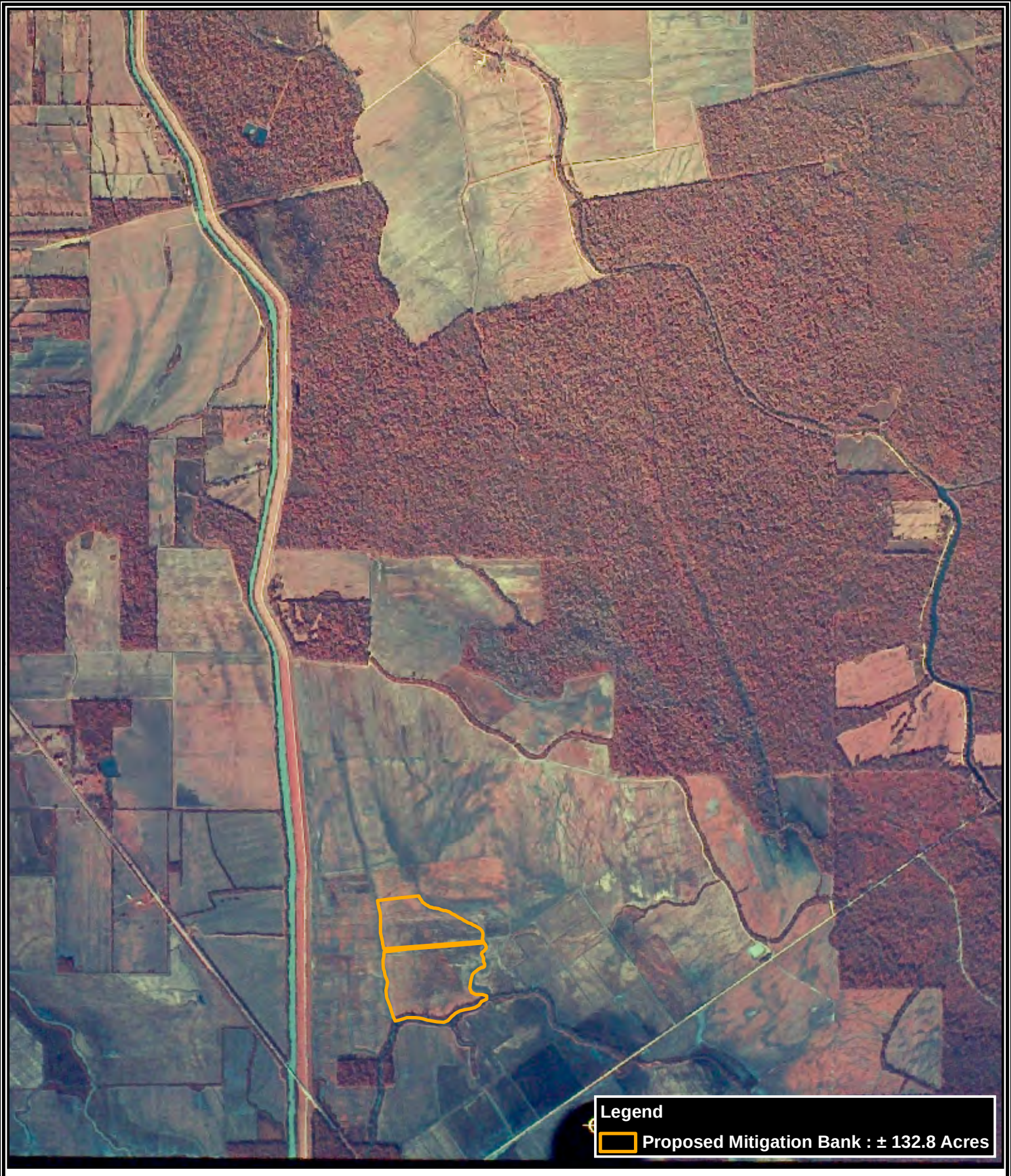

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FIGURE 3-C : 1985 HISTORICAL AERIAL

(Aerial Date : December 15, 1985)

L.J.G. Land Company Mitigation Services, LLC
Big Darbonne Bayou Mitigation Bank
St. Landry Parish Louisiana
SEC 8, 9, 16 & 17 : T05S - R06E
April 2012

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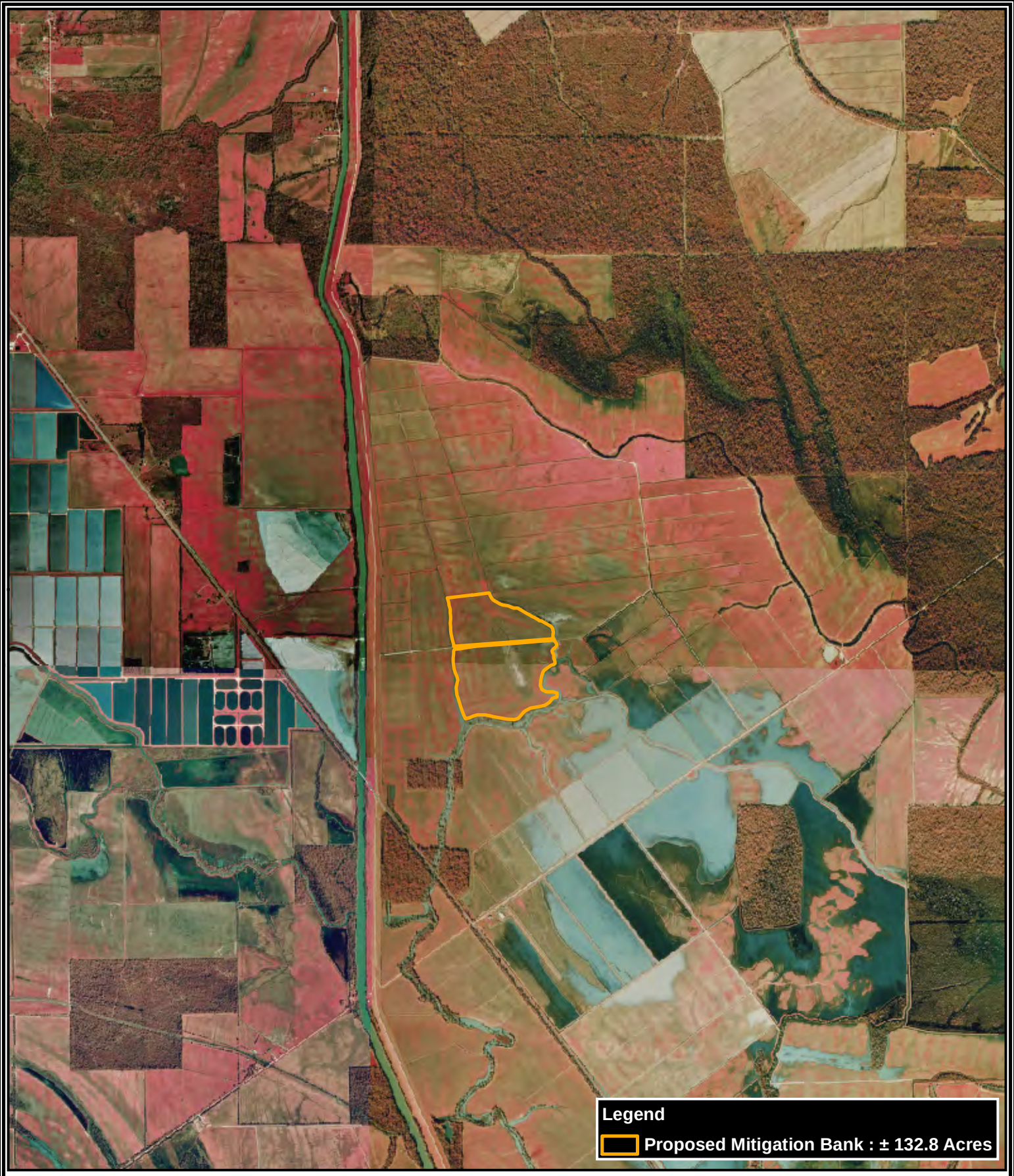

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FIGURE 3-D : 1985 HISTORICAL AERIAL

(Aerial Date : December 15, 1985)

L.J.G. Land Company Mitigation Services, LLC
Big Darbonne Bayou Mitigation Bank
St. Landry Parish Louisiana
SEC 8, 9, 16 & 17 : T05S - R06E
April 2012

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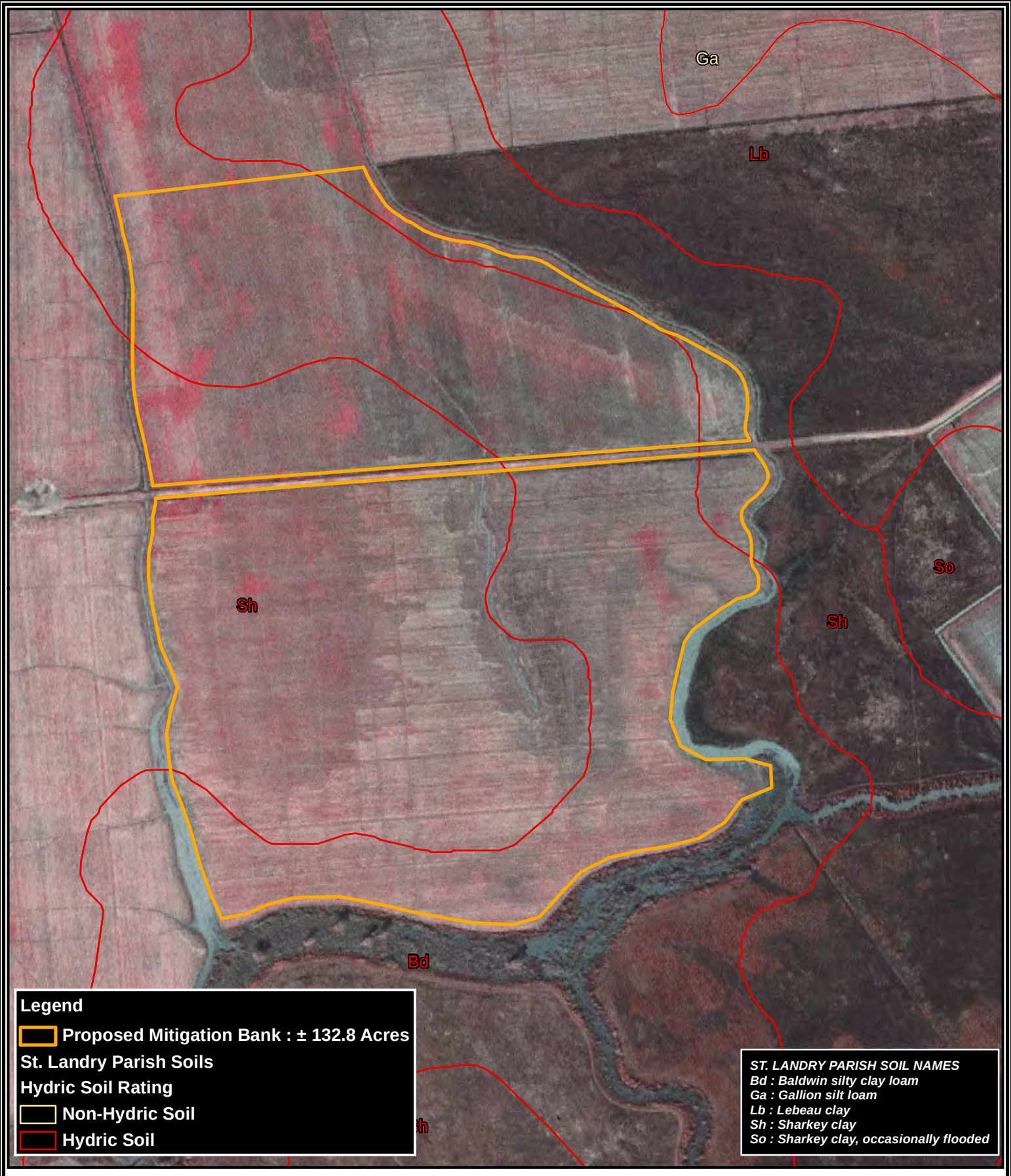

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FIGURE 4 : SOILS MAP

(2004 DOQQ)

L.J.G. Land Company Mitigation Services, LLC
Bayou Barbonne Mitigation Bank
St. Landry Parish Louisiana
SEC 8, 9, 16 & 17 : T05S - R06E
April 2012

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FIGURE 5 : CONTRIBUTING DRAINAGE MAP

(Aerial Date : 1985)

L.J.G. Land Company Mitigation Services, LLC
Big Darbonne Bayou Mitigation Bank
St. Landry Parish Louisiana
SEC 8, 9, 16 & 17 : T05S - R06E
April 2012

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FIGURE 6 : L.I.D.A.R. CONTOUR MAP

(2010 N.A.I.P. Aerial)

L.J.G. Land Company Mitigation Services, LLC
Big Darbonne Bayou Mitigation Bank
St. Landry Parish Louisiana
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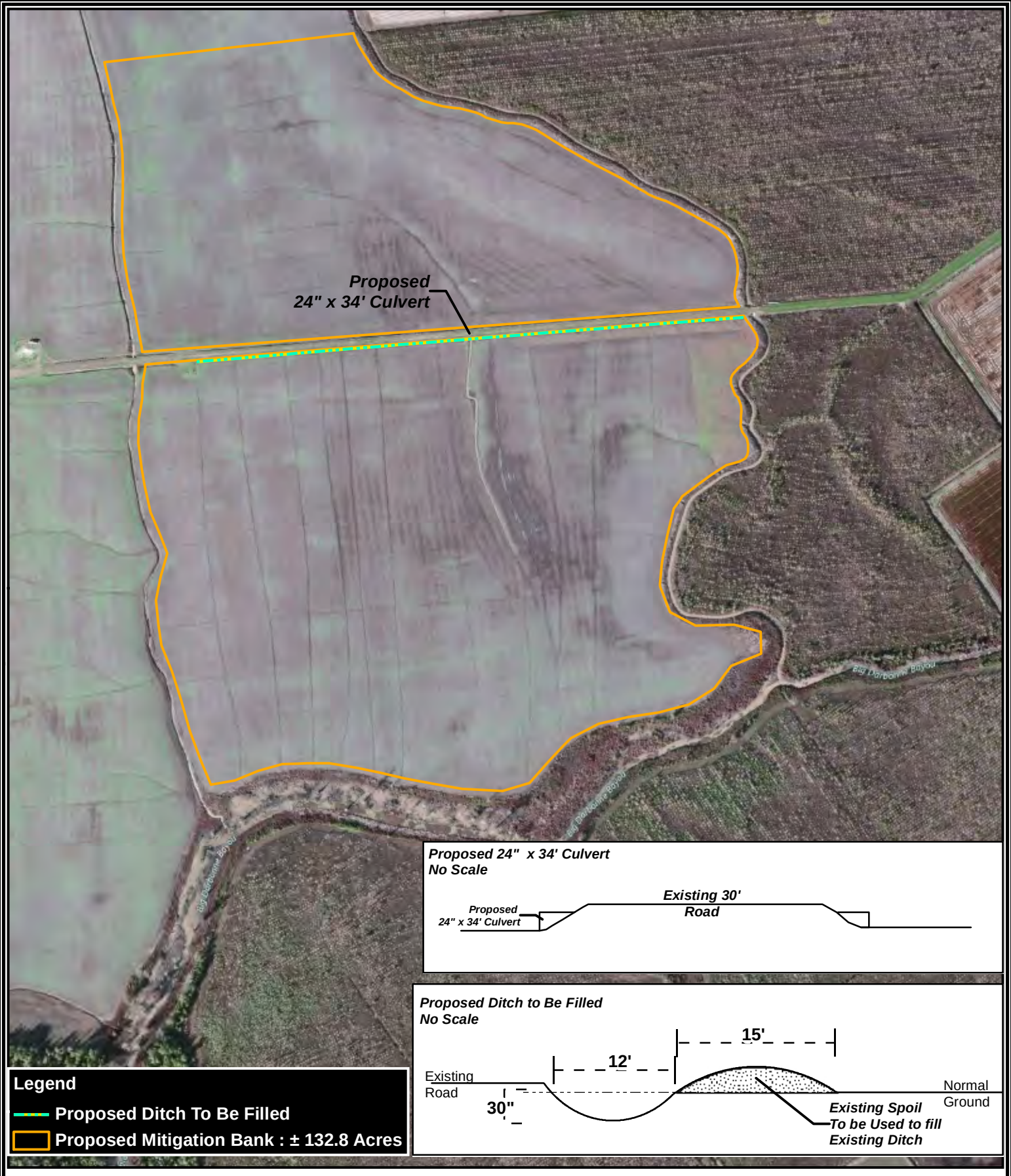

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FIGURE 7 : HYDROLOGIC IMPROVEMENT MAP

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St. Landry Parish Louisiana
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April 2012

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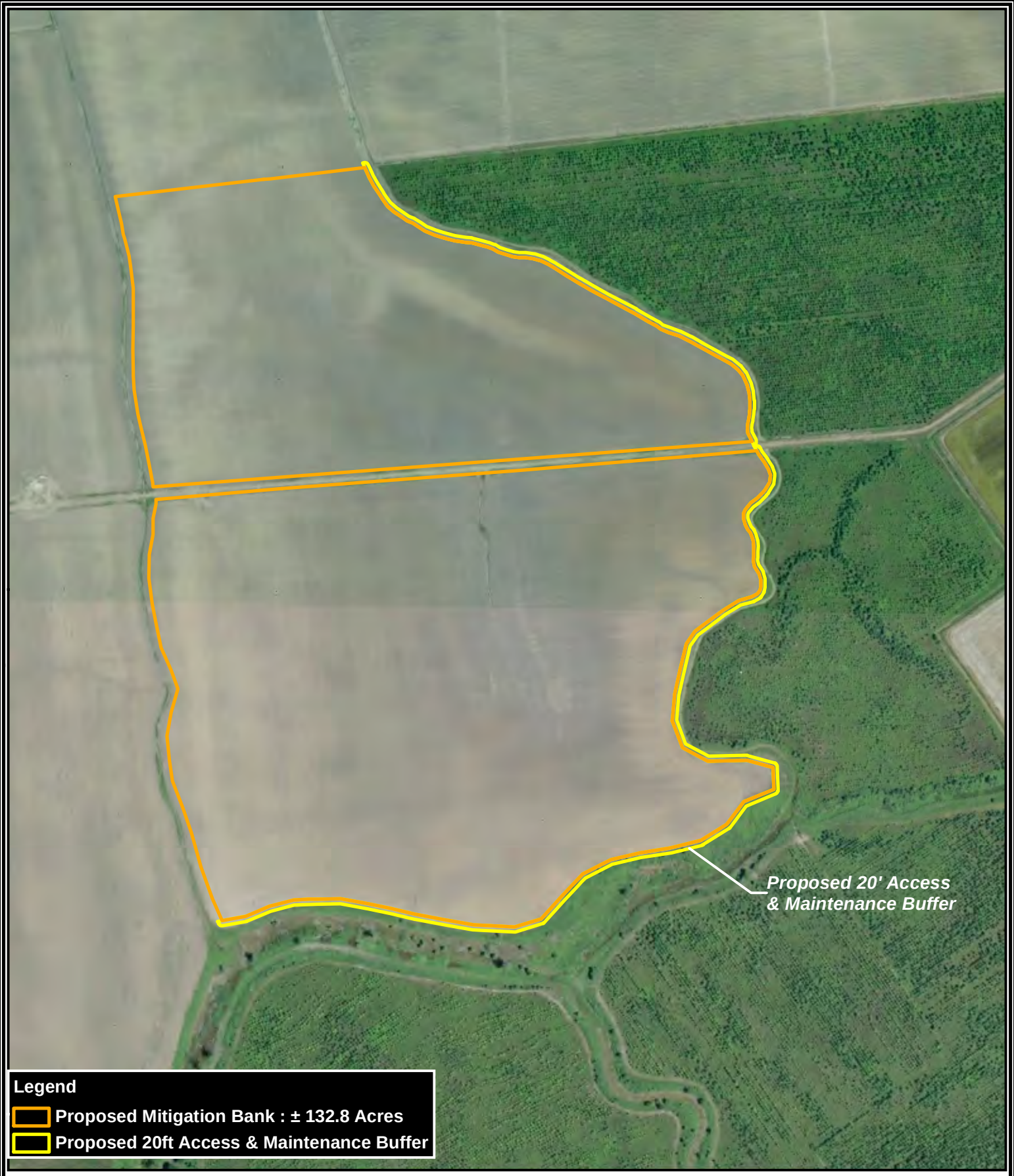

FIGURE 8 : PERIMETER BUFFER MAP

L.J.G. Land Company Mitigation Services, LLC
Bayou Barbonne Mitigation Bank
St. Landry Parish Louisiana
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September 2012

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FIGURE 9 : USGS HYDROLOGIC UNIT MAP

(National Geographic Map)

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St. Landry Parish Louisiana
SEC 8, 9, 16 & 17 : T05S - R06E
September 2012

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